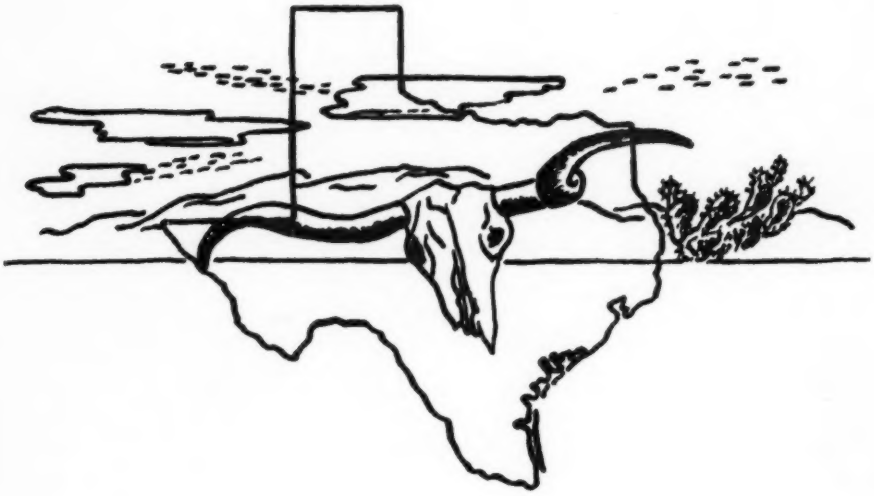
ACI News Letter

Vol. 25, No. 2 JOURNAL of the AMERICAN CONCRETE INSTITUTE October 1953

WESTWARD HO! .....



FOR ACI'S SOUTHWEST REGIONAL MEETING

RICE HOTEL

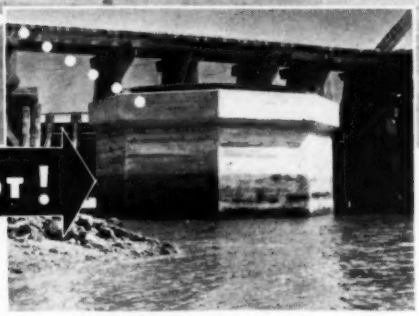
HOUSTON, TEXAS

OCTOBER 29 - 30, 1953

GREAT NORTHERN RAILWAY

SPANS PUGET SOUND INLET...

...ON A PREPAKT PIVOT!



The completed Prepakt pivot pier prior to mounting of new 368-foot swing-type truss.

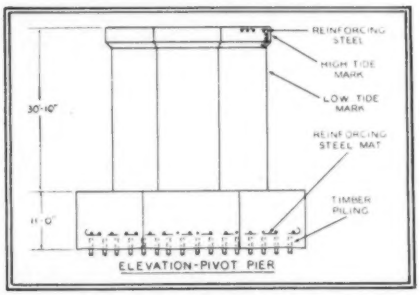
In keeping with their continuing modernization program, the Great Northern Railway reconstructed its bridge over an inlet of Puget Sound at Whitmarsh, Washington, to accommodate increased rail tonnages.

A pivot pier for the bridge's new 368-foot swing-type center segment and a terminal pier were constructed by the Intrusion Prepakt method after this modern technique of concrete placement proved simple and economical in the laying of the pivot pier's base.

Forms for the 1524 cu yd pivot were filled directly with coarse aggregate delivered by bottom dump rail cars. Then, highly penetrable Intrusion Mortar was pumped into the preplaced aggregate, filling all voids to form a monolithic structure having high resistance to salt water deterioration.

The use of the Prepakt method produced major economies by (1) eliminating costly, time-consuming de-watering and (2) permitting use of lighter-weight forms since no hydrostatic pressures were involved. All concrete placement was completed with the old span in place and without traffic interruptions.

Full information on this and other Prepakt structures may be had by calling or writing the Main Office, Room 779-I, Union Commerce Building, Cleveland, Ohio



Drawing shows construction details for pivot pier of Prepakt Concrete. End pier was built in similar fashion.

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ACI

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October 1953

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Scholer nominated for president

Kerekes receives nomination for vice-president

The 1953 ACI Nominating Committee, consisting of Stanton Walker, chairman, Frank H. Jackson, Harry F. Thomson, A. T. Goldbeck, H. F. Gonnerman, R. B. Young, L. E. Grinter, and R. E. Copeland, reports the following nominations for election at the 50th annual convention in Denver.

For President

Charles H. Scholer to succeed Henry L. Kennedy for a one-year term beginning at the February, 1954, convention.

Professor Scholer, head, Department of Applied Mechanics, Kansas State College, Manhattan, is the author of several papers in the ACI JOURNAL and has been associated with the Institute since 1924. He is a member of ACI Committee 115, Research, and Committee 215, Fatigue of Concrete. He has also been active in administrative work, and is at present vice-president of the Board of Direction.

Professor Scholer has spent most of his time in the field of education, except for a brief period when he was in charge of investigational work in New York and Pennsylvania for the Portland Cement Assn. in 1939 and 1940.

For Vice-President

Frank Kerekes for a two-year term, beginning at the February, 1954, convention.

Professor Kerekes, assistant dean, Division of Engineering, Iowa State College, Ames, has been an ACI member since 1938 and is chairman of ACI Committee 318, Standard Building Code, and a member of Committee 315, Detailing Reinforced Concrete Structures.

Professor Kerekes has been active on ACI technical and administrative committees and was a member of the Technical Activities Committee.

Continued on p. 4

He has also served as chairman of the Iowa Building Code Council.

Charles S. Whitney, consulting engineer, Ammann and Whitney, New York and Milwaukee, elected for a two-year term as vice-president at the 1953 convention in Boston, continues in that office.

Directors

For Directors, three-year terms, four nominations for as many places on the Board: Phil M. Ferguson, Joseph F. Jelley, H. C. Ross, and George W. Washa.

Professor Ferguson, chairman, Department of Civil Engineering, University of Texas, Austin, is a member of numerous ACI committees: 115, Research; 315, Detailing Reinforced Concrete Structures; 318, Standard Building Code; 321, Design of Reinforced Concrete Slabs; and in addition is the ACI representative to the American Welding Society Subcommittee on Welding of Bars, Metal Inserts and Connections in Reinforced Concrete Construction. He has been a member of the Institute since 1930.

After graduation from the University of Texas in 1922 and master's degrees from the University of Texas in 1923 and the University of Wisconsin in 1924, he spent several years with Dwight P. Robinson and Co. of New York, N. Y., as a structural designer.

Professor Ferguson returned to the University of Texas as associate professor in the field of structures and materials in 1928. He was raised to the rank of professor in 1939 and was made chairman of the civil engineering department in 1943. He has been consultant on a number of projects.

Admiral Jelley, rear admiral, CEC, USN, chief, Bureau of Yards and Docks, Department of the Navy, Washington, D. C., has been an ACI member since 1950, and was appointed in 1952 to fill a vacancy on the Board of Direction.

Following engineering duties at various naval stations, Admiral Jelley was in charge of construction of the Naval Air Station, Alameda, Calif., in 1941, and the Naval Base at Terminal Island, Long Beach, Calif., in 1942. This work involved many types of concrete structures such as hospitals, barracks, large prestressed oil tanks, and large concrete graving docks. In 1946, Admiral Jelley was named deputy chief of the Bureau of Yards and Docks and in 1949 was named chief.

Mr. Ross, assistant director of research, Hydro-Electric Power Commission of Ontario, Canada, is a member of ACI Committees 115, Research, and 613, Recommended Practice for Proportioning Concrete Mixes, and he has been a member of the Institute since 1931. He has also authored several contributions to the JOURNAL.

Professor Washa, Department of Mechanics, University of Wisconsin, Madison, has been a member of ACI since 1940 and is chairman of ACI Committee 213, Properties of Lightweight Aggregates and Lightweight Aggregate Concrete; secretary of Committee 115, Research, and member of Committee 609, Compaction of Concrete by Mechanical Means.

Professor Washa is the author of numerous ACI papers and received the Wason Medal for noteworthy research reported in his 1940 paper, "Comparison of the Physical and Mechanical Properties of Hand Rodded and Vibrated Concrete Made with Different Cements."

He graduated from the University of Wisconsin in 1930, and received his PhD from the same university in 1938.

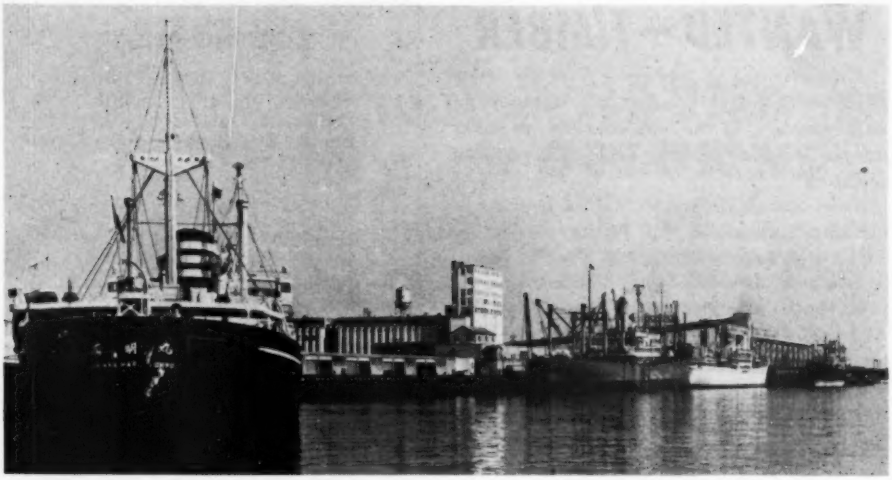
Nominating Committee

The 20 candidates for membership on the 1954 Nominating Committee—five to be elected—are:

Charles W. Allen	Joseph DiStasio
E. W. Bauman	E. A. Finney
E. E. Bauer	W. C. Hanna
R. L. Blaine	Fred Hubbard
D. L. Bloem	A. A. Levison
Fred Burggraf	James A. McCarthy
Robert A. Burmeister	Carl A. Menzel
Miles N. Clair	Paul W. Norton
H. F. Clemmer	Walter H. Price
H. K. Cook	A. G. Timms

Report of ACI membership vote on adoption of the "Highway Manual"

On Sept. 1, 1953, the secret letter ballots on adoption of the "Manual of Standard Practice for Detailing Reinforced Concrete Highway Structures" as an Institute standard were canvassed. The membership approved the proposed standard, and copies are expected to be available for distribution in November.



View of Port of Houston, ranked second among the nation's deep sea ports with an annual capacity of more than 45,000,000 tons

Growth of a giant, Houston—host to Southwest Regional Meeting

Houston, chosen to be host to ACI's Southwest Regional Meeting, October 29-30, has had an amazing growth, both historically and as a dynamic city and port, and today is ranked 14th in population in the country. The largest city in the Southwest, Houston was founded in 1836 and was named after General Sam Houston, first president of the Republic of Texas. In little more than a century, Houston has grown from a log cabin frontier village overlooking sleepy Buffalo Bayou to a giant rising on the coastal plain of Texas.

Moses Austin, a mine operator from Missouri with a zest for pioneering, rode a borrowed horse into Texas in 1820 to blaze a trail for American colonists. His sudden death in 1821 left the task of colonization to his 27-year-old son, Stephen F. Austin. The efforts of young Austin were so successful that he has gone down in history as "the father of Texas."

American colonists, impressed with possibilities this new land had to offer, gained so strong a foothold that in 1836 they were able to fight for independence against Mexico, and on April 21, 1836, at San Jacinto climaxed the successful war. Almost immediately following this battle, two New York real estate men, Augustus C. and John K. Allen, conceived their greatest promotional project. In August of 1836, the Allen brothers purchased land from the John Austin family upon which to found a city at the headwaters of Buffalo Bayou, 18 miles from the San Jacinto battle ground, and to be named after the rugged and tempestuous General Houston.

Remembering the advertisements which had lured them to Texas in 1832, the Allen brothers ballyhooed in loudest terms the town of Houston. Their promotion was largely successful and the town soon began to grow, with the added attraction of Houston being named temporary capital of the new republic in November, 1836.

Despite inconveniences of a frontier town, inflated currency, and yellow fever, Houston prospered and grew and on July 5, 1837, was officially incorporated. By 1839, the aggressive spirit of the citizens and pride in the town had risen to such a degree that even though Austin was named permanent capital of Texas, the city continued to grow and by 1858 had a population of 4815 with commerce firmly established.

In 1868 dredging operations in Buffalo

Continued on p. 20

WANTED—TIMBER

This editorial is reprinted from the June 1953 JOURNAL to again call attention of ACI members to the opportunities available for participating actively in ACI committee activities.

Yes—human timber to build a backlog of qualified individuals for future service on ACI's technical committees. The Technical Activities Committee views with concern the fact that only 282 individuals make up ACI's 31 technical committees. Thus, with less than 5 percent of ACI's 6100 members active in committee work, TAC is convinced that much member talent remains undiscovered and unused in this most important ACI activity from which come the reports and Standards which are the authoritative voice of the Institute.

What's the remedy? The silent 95 percent must provide it by making known their interest in and qualifications for committee assignments so that TAC may, from the information furnished, recommend new appointments to existing committees and select personnel for new committees which may be organized in the future.

It has been said that knowledge pent up within an individual is of little value—only when it is transmitted to others does it establish its true worth. Only you know your most engrossing interests and your technical fortes. Only you can apprise those responsible for committee affairs of your potential for participation in technical work of the Institute.

Look over the list of technical committees and write ACI headquarters about your technical background and designate that committee on which you would like most to serve. (Detailed information on committee assignments may be found on pp. 23-33, *ACI Directory—1953.*) Secondary choices will also be of interest.

Since relatively small committees have proved most effective and the process of infusing new personnel into committees is necessarily slow, immediate appointment to the committee of your choice may, of course, not be possible. However, be assured that when vacancies occur or new committees are formed your qualifications will be given fullest consideration.

LOOKING AHEAD

October 19-21, 1953—35th Annual Meeting and 4th National Standardization Conference, American Standards Assn., Waldorf-Astoria Hotel, New York, N. Y.

October 19-23, 1953—41st National Safety Congress and Exposition, Congress, Conrad Hilton, Hamilton, LaSalle, Morrison, and Palmer House Hotels, Chicago, Ill.

October 19-23, 1953—New York Convention, American Society of Civil Engineers, Hotel Statler, New York, N. Y.

October 29-30, 1953—Southwest Regional Meeting, American Concrete Institute, Rice Hotel, Houston, Texas

January 5-7, 1954—American Road Builders' Assn. Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.

January 25-28, 1954—Plant Maintenance and Engineering Show, International Amphitheatre, Chicago, Ill.

January 28-29, 1954 — Canadian Conference on Prestressed Concrete, University of Toronto, Toronto, Ont., Canada

February 7-10, 1954—34th Annual Convention, National Concrete Masonry Assn., Shoreham Hotel, Washington, D. C.

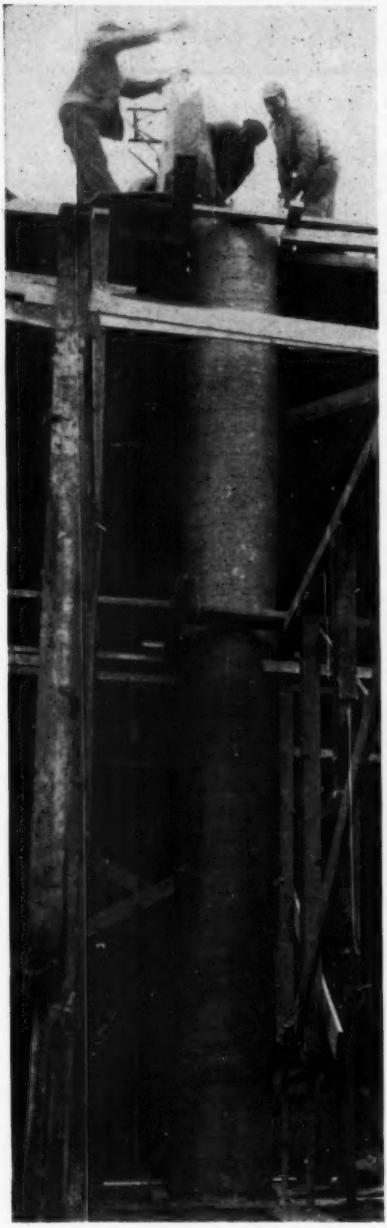
February 15-19, 1954—38th Annual Convention, National Sand and Gravel Assn., Conrad Hilton Hotel, Chicago, Ill.

February 15-19, 1954—24th Annual Convention, National Ready Mixed Concrete Assn., Conrad Hilton Hotel, Chicago, Ill.

February 15-19, 1954—Atlanta Convention, American Society of Civil Engineers, Hotel Biltmore, Atlanta, Ga.

February 22-24, 1954—37th Annual Convention, National Crushed Stone Assn., Conrad Hilton Hotel, Chicago, Ill.

February 22-25, 1954—Golden Anniversary Convention, American Concrete Institute, Shirley-Savoy Hotel, Denver, Colo.



ABOVE—A 24" SONOTUBE being poured at Pierce & Phelps Company Building, Philadelphia. Hunt and Gregory, Architects. Robert E. Lamb, Contractor. Photo by E. Troiani.

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CBS Television Center, Los Angeles. Pereira and Luckman, Architects. Photo by Ezra Stoller, for CBS.

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Positions and Projects — ACI Members

Preview of ACI Golden Anniversary Convention events

The Golden Anniversary Convention of the American Concrete Institute, to be held in Denver, Colo., Feb. 22-25, 1954, promises not only an outstanding technical program but also extraordinary entertainment features. For all convention registrants a high point will be a buffalo barbeque, and for the ladies, a luncheon at the Broadmoor Hotel is scheduled.

The Denver convention committee has arranged a barbeque, to be held at noon on February 23 at the laboratories of the Bureau of Reclamation at the Denver Federal Center, in the foothills 9 miles west of downtown Denver. The Bureau will present the technical program for that day. Succulent young buffalo meat, furnished by the Denver Junior Chamber of Commerce, will be the entre for a "chuck wagon style" luncheon. Those who have never had the comparatively rare opportunity of eating buffalo have a treat in store for them.

An outing on Wednesday, February 24, for the ladies involves a pleasant motor drive to Colorado Springs, resort city 70 miles south of Denver, for a luncheon at the fabulous Broadmoor Hotel. Time may be allowed to visit the Shrine to the Sun, a memorial to the late Will Rogers, and the huge private Cheyenne Mountain Zoo, both part of the Broadmoor development.

An innovation will be the President's Dinner featuring an address by a national figure and attendance by leaders of industry, science, and government. In addition special plans are being made for a dinner dance.

ASEE appoints civil engineering division officers

During the college year 1953-54, activities of the civil engineering division of the American Society for Engineering Education will be directed by the following officers: A. J. McNair, chairman, Cornell University; W. J. Eney, vice-chairman; R. L. Peurifoy, secretary; G. B. Lyon, editor, *Civil Engineering Bulletin;* E. E. Gaylord, member of council for 1954; J. W. Hubler, director; C. E. Kindsvater, director; and D. F. Peterson, director.

Officers of the mechanics division are: H. R. Lissner, chairman, Wayne University; Glenn Murphy, editor; W. Leighton Collins, member of council; F. J. McCormick, member of executive committee; and J. L. Meriam, member of executive committee.

Local Section holds Denver meeting

A meeting of the Denver Local Section of the American Concrete Institute was held August 20, in Denver, Colo. Presiding was section chairman E. C. Higginson. Two speakers and a lively discussion comprised the main features of the evening. Nicolaas T. F. Stadtfeld, retired division engineer of the New York Board of Water Supply, spoke on "Experiences with Portland Cement." The other talk "Why Five Types of Portland Cement?" was given by Harmon S. Meissner, research engineer for the Bureau of Reclamation.

Libraries receive prestressed concrete literature

A comprehensive collection of textbooks and literature on prestressed concrete has been donated to public libraries in 53 cities with populations over 100,000 in the United States, Canada, and Hawaii by Martin Mahler, consultant in prestressed concrete.

Lount forms partnership

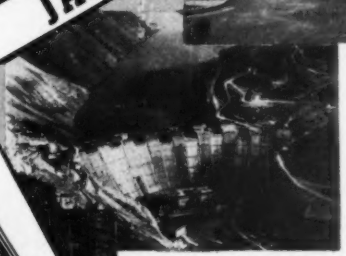
A. M. Lount, Jr., has formed a partnership with Dr. T. O. Lazarides with offices in Toronto, Ont., and Montreal, Que., Canada. The firm will deal exclusively in the design and supervision of prestressed concrete structures.

Mr. Lount was formerly with the Hydro-Electric Power Commission of Ontario, Canada, where he specialized in work connected with prestressed concrete. Dr. Lazarides was until recently a consulting structural engineer in London, England. He was responsible for the first prestressed chimney built in Northern Ireland, and conducted the structural analysis for the Dome of Discovery at the recent Festival of Britain.

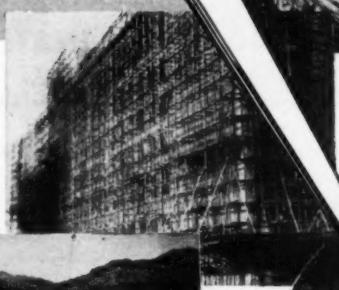
Protex

All Over The World It's Protex For Leadership in Construction

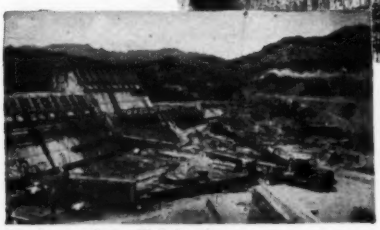
San Juan Housing Project, Puerto Rico
This new housing project, constructed on filled-in-marsh-land, used Protex air entrainment for easier placement and better surface texture.



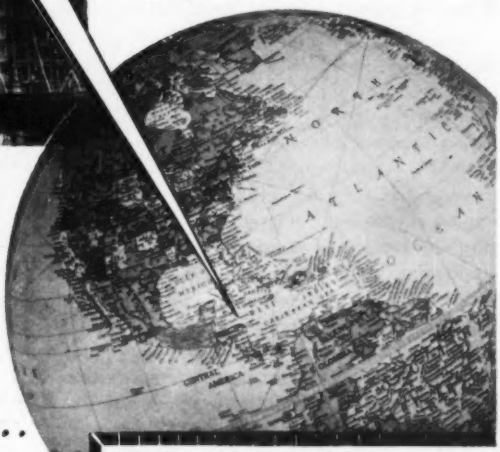
Hungry Horse Dam, Montana
This one project contains over 3 million cubic yards of Protex concrete. Protex was selected because of its consistent quality and proven economy.



Fuji Bank Bldg., Tokyo, Japan
Economy in this new bank building was realized in initial cost, time and labor, with Protex concrete.



Rio Lempa Dam, El Salvador
This giant state-sponsored project used Protex air entraining agent for high quality concrete under normally unfavorable labor and climatic conditions.



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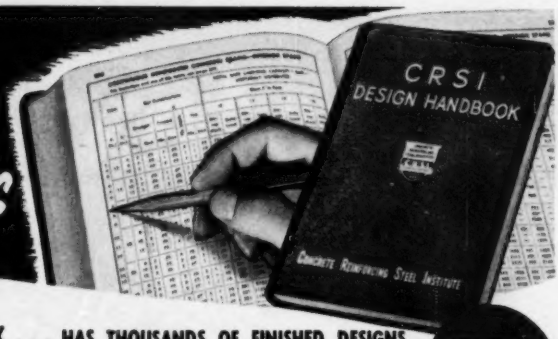
Firm Name_____

Attn. of:_____

Address_____

City_____ State_____

HOW TO DESIGN A REINFORCED CONCRETE MEMBER IN 30 SECONDS



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Brazil expands cement production

The Brazilian government announced a major program to speed expansion of cement production through stimulation of investment by foreign and domestic capital. This action would allow cement companies which establish cement mills in Brazil or expand existing facilities to claim exemption from import duties and related taxes. The exemption would cover machinery and tools, equipment used to extract raw materials, and equipment needed for producing and transmitting power to operate cement mills.

Brazil is at present producing at an annual rate of 2,300,000 metric tons of cement but imports are still required to make up the difference between production and demand. Imports in 1952 amounted to 820,000 tons while domestic output was 1,600,000 tons. At present there are 14 cement mills in operation, with 11 more in various stages of planning or construction.

Companies wishing to take advantage of the exemption must be incorporated in Brazil, have a capital of at least 25,000,000 cruzeiros (about $650,000 at the free exchange rate), plan a 30,000-ton plant, and have access to mineral deposits sufficient for 15 years' supply. Further, the beneficiary must guarantee to begin manufacturing cement within 18 months.

Errata

The following corrections should be made in "Nomographic Chart for Uniformly Distributed Loads," ACI JOURNAL, May, 1953.

p. 864—the material at the top of the page should read as follows:

"$x_1 = 0.129 \times 13 \times 12 = 20.2$ in.

$x_2 = 0.815 \times 13 \times 12 = 127$ in.

$$x_{max} = \frac{20.2 + 127}{2} = 73.6 \text{ in.}$$

$$s = \frac{127 - 20.2}{2} = 53.4 \text{ in.}$$

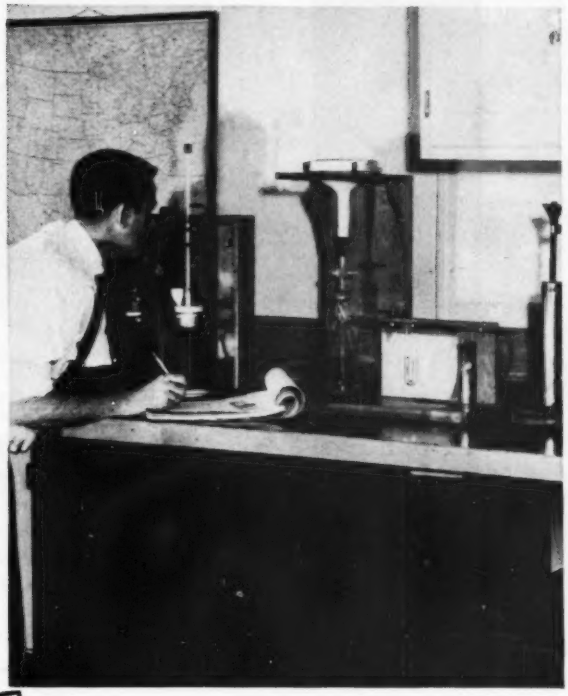
$$s_1 = 53.4\sqrt{\frac{0.196}{1.032}} = 23.3 \text{ in.}$$

$$s_2 = 53.4\sqrt{\frac{0.444}{1.032}} = 35.0 \text{ in.}$$

$x_{1\,1,2} = 76.6 \pm 23.3 = 50.3$ in. and 96.9 in.

$x_{2\,1,2} = 73.6 \pm 35.0 = 38.6$ in. and 108.6 in."

Why you get BETTER CONCRETE with DAREX AEA...



Always specify DAREX AEA to get the full benefits of air entrained concrete:

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- *Has finer surface texture*

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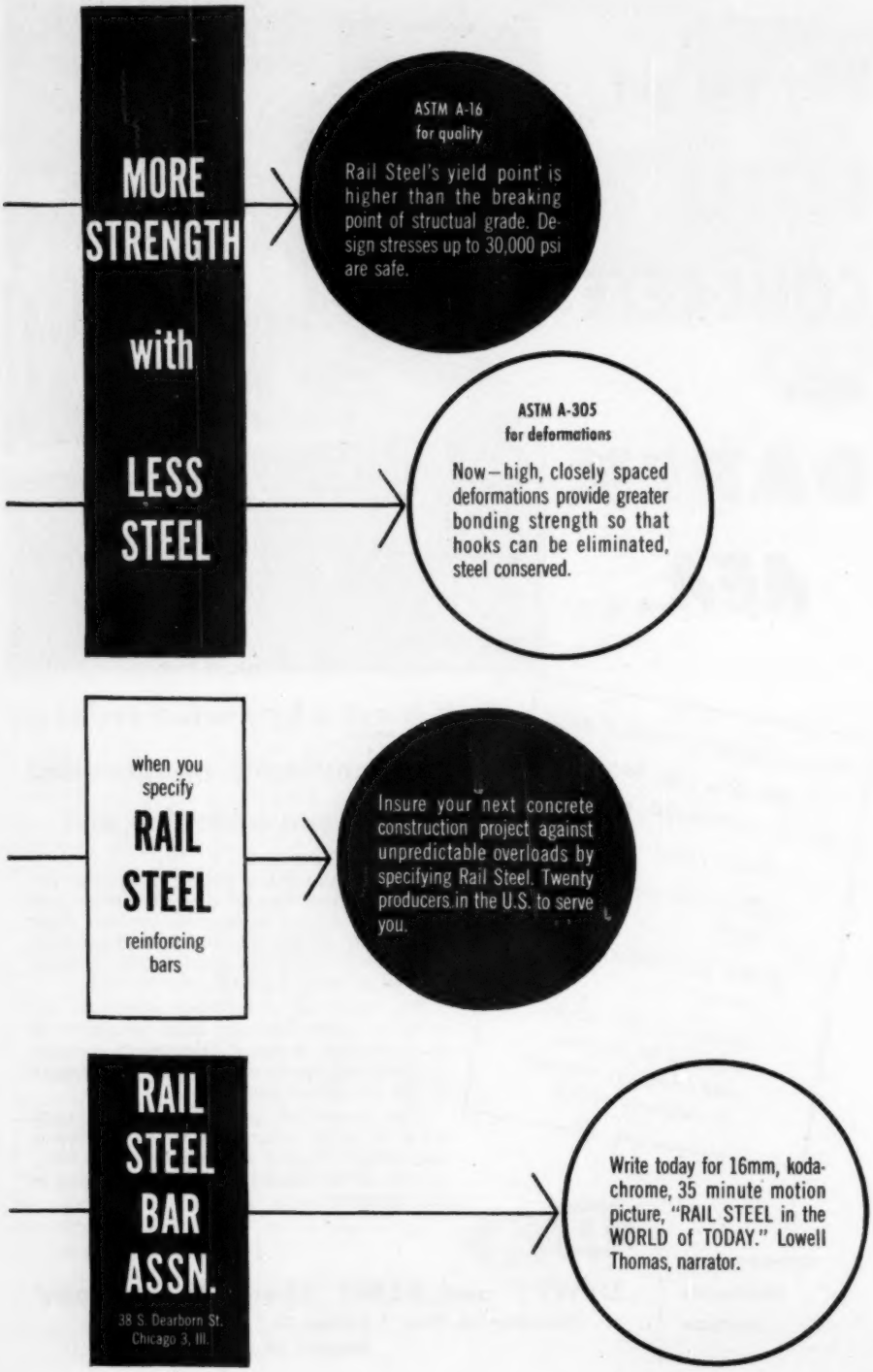
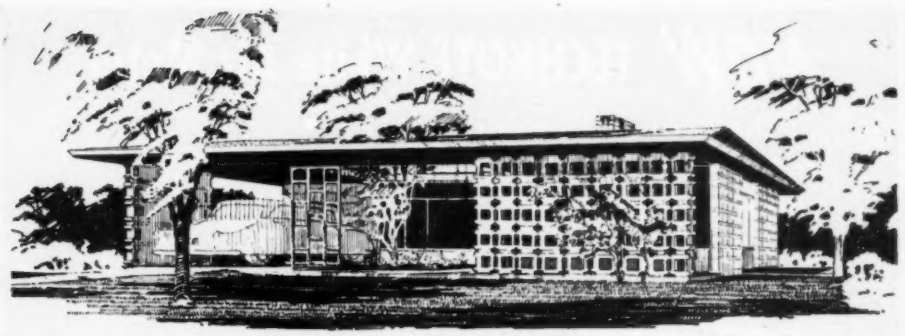

MORE STRENGTH with LESS STEEL
ASTM A-16
for quality
Rail Steel's yield point is higher than the breaking point of structual grade. Design stresses up to 30,000 psi are safe.
ASTM A-305
for deformations
Now—high, closely spaced deformations provide greater bonding strength so that hooks can be eliminated, steel conserved.
when you specify
RAIL STEEL
reinforcing bars
Insure your next concrete construction project against unpredictable overloads by specifying Rail Steel. Twenty producers in the U.S. to serve you.
RAIL STEEL BAR ASSN.
38 S. Dearborn St.
Chicago 3, Ill.
Write today for 16mm, kodachrome, 35 minute motion picture, "RAIL STEEL in the WORLD of TODAY." Lowell Thomas, narrator.



First place design in the Nebraska concrete masonry home competition calls for walls of 8-in. block with alternate courses concrete brick. Concrete soffit tile and a 2-in. slab make up the floor. The screen shielding the front of the house is made of pilaster block and concrete brick

Nebraska concrete masonry homes competition winners announced

Kenneth B. Clark and Lawrence A. Enersen, partners in the architectural firm of Clark and Enersen, Lincoln, Neb., were the winners of the first place $1000 award in a Nebraska competition for the best new designs for small concrete masonry homes.

A second place $250 award was given to a design submitted by Sidney W. Campbell and Reginald E. Davies, associated with the firm of Unthank and Unthank of Lincoln.

Ten $50 Awards of Merit were given to designs submitted by the following: Alex Weinstein of Omaha; Clyde Bourgeois of Omaha; Mrs. Blanche Plunkett of Hastings; Ed C. Gross of Lincoln; Burkett E. Graf of Lincoln; John H. Aylor of Omaha; Woodrow Hull of Lincoln; James W. Nicas of Omaha; James A. Lynch of Omaha; and Dale L. Gibbs, Roy C. Neumann, and Hedy C. Neumann of Lincoln.

The winning designs were chosen from a field of 31 entries by a Jury of Award which consisted of Harold Spitznagle, architect from Sioux Falls, S. D.; James T. Lendrum, executive director of the Small Homes Council, University of Illinois, Urbana, Ill.; and R. E. Copeland, director of engineering, National Concrete Masonry Assn., Chicago, Ill. The Nebraska Architects Assn., a chapter of the American Institute of Architects, sponsored the competition, and the Nebraska Concrete Masonry Assn. served as donor.

The first place design by Clark and Enersen is for a three-bedroom house, 46 x 23 ft, with an added kitchen ell, plus covered porch and carport. It has a divided basement, and features a large living room and a large, open multi-purpose area.

In commenting upon the winning design, the jury noted that it employs carefully considered new uses for concrete masonry; that it shows a good basic relationship between rooms; that it is a direct and simple plan with an open quality; that it is advantageously oriented to the lot; and that its easily-supervised multiple-purpose area is unusual in a house of the size under consideration.

Announced purpose of the competition was to (1) stimulate new ideas for home builders in the moderate income class; (2) stimulate a greater interest in the use of concrete masonry for home construction; and (3) stimulate a further desire for architectural services in home design.

The designs were based on a lot, located anywhere within the state, with a frontage dimension not to exceed 60 ft and a depth of 125. Living area was restricted to 1200 sq ft on one level with the basement not taken into consideration. Use of modular dimensioned concrete masonry in the construction of all exterior walls and chimneys was mandatory.

Earl appointed consulting engineer

Austin W. Earl, San Francisco, Calif., has been appointed consulting engineer to the Division of San Francisco Bay Toll Crossings. Mr. Earl is a partner in the firm of Earl and Wright, consulting engineers.

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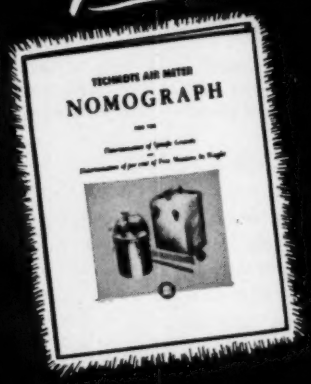

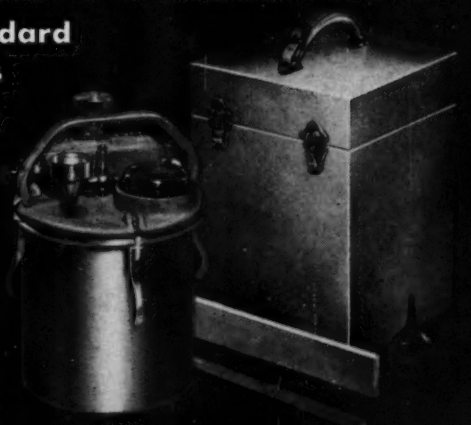

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Abbett honored

Robert W. Abbett, partner, Knappen-Tippetts-Abbett-McCarthy, consulting engineers, New York, N. Y., has been awarded an honorary degree of doctor of science from Gettysburg College.

Marietta Concrete Corp. appoints Snowball as consultant

Appointment of John R. Snowball as consulting engineer to the Marietta Concrete Corp., Marietta, Ohio, has been announced by Frank L. Christy, president.

Mr. Snowball, an authority in the field of structural and precast concrete, has been associated with the Portland Cement Assn. since 1940, as housing and products engineer, structural engineer, and quality concrete lecturer for the PCA district office. A graduate of Purdue University with a BS in civil engineering, he has been engaged in concrete roadwork, was maintenance engineer for the New York Central railroad, design engineer for the Truscon Steel Co. in Indianapolis, chief engineer for the Prest-o-lite Co. also of Indianapolis, and was associated with the firm of Esselstyn-Murphy-Hanford, architectural engineers of Detroit, where he designed the Belle Isle bridge.

Mr. Snowball was associated with the Portland Cement Assn. in Columbus, from 1925-29, then entered the contracting business, and was associated with the Norwood Construction Co., Cincinnati, Ohio. Following this, he was appointed a traveling engineer with the Public Works Administration working out of the Chicago regional office. It was from this position he returned to PCA in Columbus in 1940 where he remained until being named consulting engineer for the Marietta Concrete Corp.

Reviewers needed

Cement och Betong

This Swedish technical periodical is being received regularly at Institute headquarters. A volunteer reviewer is needed to keep Members informed of pertinent papers in this publication through the "Current Reviews" section of the JOURNAL. Those interested please write the Secretary.

Ingenioren

This Danish technical periodical is being received regularly at Institute headquarters. A volunteer reviewer is needed to keep Members informed of pertinent papers in this publication through the "Current Reviews" section of the JOURNAL. Those interested please write the Secretary.

Gradbeni Vestnik

This Yugoslavian technical periodical is now being received regularly at Institute headquarters. A volunteer reviewer is needed to keep Members informed of pertinent papers in this publication through the "Current Reviews" section of the JOURNAL. Those interested please write the Secretary.

Sturdy elected president

Howard H. Sturdy, vice-president of the Dravo Corp., Pittsburgh, Pa., has been elected president of the Constructors Assn. of Western Pennsylvania.

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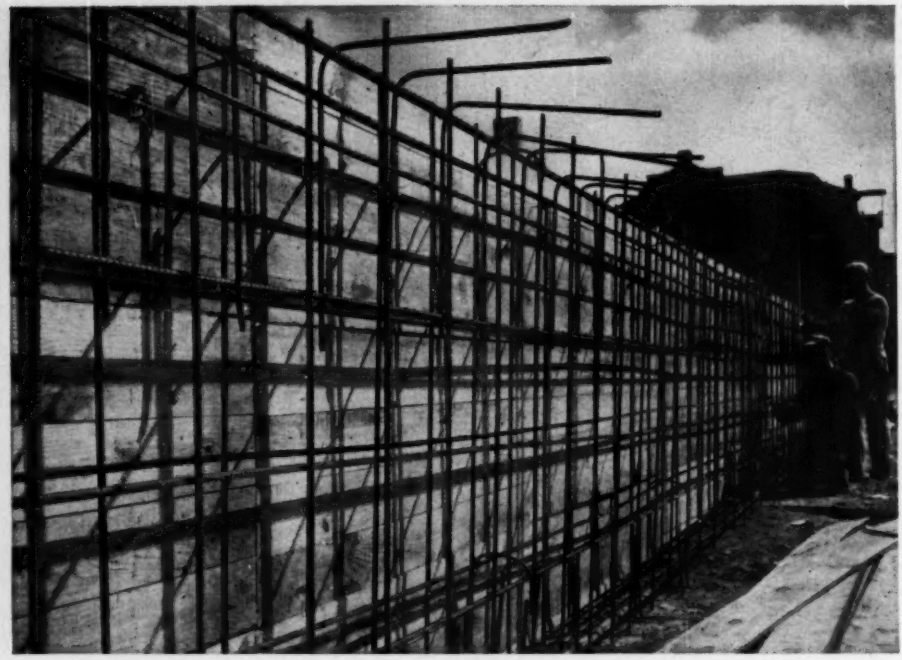

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Who's Who This Month

ACI Committee 613

"Proposed Recommended Practice for Selecting Proportions for Concrete," p. 105, is reported by ACI Committee 613, Walter H. Price, chairman. Members of this committee are: Clayton L. Davis, A. T. Goldbeck, Fred Hubbard, Frank H. Jackson, Henry L. Kennedy, Thomas B. Kennedy, Guy H. Larson, H. C. Ross, I. L. Tyler, and Stanton Walker.

The report has been released by the Standards Committee for publication and discussion with view to its consideration for adoption as an Institute Standard to supersede "Recommended Practice for the Design of Concrete Mixes (ACI 613-44)" at the 50th annual convention in Denver in February, 1954.

This recommended practice applies primarily to monolithic concrete of average density. Lightweight aggregate concrete and "no-slump" concrete for masonry units will be covered in separate reports.

Herbert E. Worley and Richard C. Meyer

"Development of a Cell for the Installation of Electrical Resistance Strain Gages in Concrete," p. 121, is described by Herbert E. Worley and Richard C. Meyer, soils research engineer and electronics engineer, respectively, State Highway Commission of Kansas, Topeka.

Mr. Worley received a BS degree in civil engineering in 1933 from the University of Kansas. Since 1934, except for one short period, he has worked for the State Highway Commission of Kansas on construction, materials, and research. Mr. Worley was responsible for the analysis of data reported in 1952 by the commission on the comparison and nature of stresses in a concrete pavement due to different applied loads and axle spacings. Fifty-four SR-4 electric strain gages were embedded in concrete for this test.

Currently he is engaged in an analysis of all the concrete pavements on the state system in Kansas. Mr. Worley is a member of ASCE.

Mr. Meyer has worked for the Materials Department of the Kansas highway commission since 1950 when he received a BS degree in electrical engineering from Kansas State College.

Most of his work has involved the adaptation and operation of electrical and electronic devices for the measurement of test phenomena associated with concrete research among which are the following: dynamic testing of concrete pavements with the Soniscope, measurement of deflection of concrete pavements and test beams due to applied loads with electric strain gage deflectometers, a graphical reproduction of surface roughness using the roughometer with an associated oscillograph, and the development of a gage cell for installing electrical resistance strain gages in concrete.

Gerald M. Smith

Gerald M. Smith, author of "Failure of Concrete Under Combined Tensile and Compressive Stresses," p. 137, recently joined the engineering mechanics staff, University of Nebraska, Lincoln. Formerly he was assistant professor of applied mechanics, Kansas State College.

Professor Smith for the past four years had been responsible for the execution of a research program in the study of special concrete problems related to the durability of concrete. Part of his time was also given to teaching undergraduate and graduate courses in the field of applied mechanics.

Professor Smith with Prof. C. H. Scholer received the ACI Wason Medal for Research for work reported in their paper, "Use of Chicago Fly Ash in Reducing Cement-Aggregate Reaction," ACI JOURNAL, February, 1952.

He graduated from Kansas State College with a BS degree in mechanical engineering in 1947, and a master's degree in applied mechanics in the spring of 1951. Professor Smith is a registered engineer in Kansas and a member of ACI.

T. B. Kennedy and Katharine Mather

"Correlation Between Laboratory Accelerated Freezing and Thawing and Weathering at Treat Island, Maine," p. 141, is the joint effort of Thomas B. Kennedy and Katharine Mather.

Mr. Kennedy, chief, Physical Test Branch, Concrete Research Division, Corps of Engineers, Waterways Experiment Station, Jackson, Miss., is a member of ACI Committee 115, Research, and 613, Recommended Practice for Proportioning Concrete Mixes.

He graduated in chemistry from the University of Illinois in 1930 and since that time has worked mainly in the concrete field for the Corps of Engineers. Mr. Kennedy was actively engaged in construction work for several years and has been associated with the Concrete Research Division at the Waterways Experiment Station for the past 14 years.

Mrs. Mather, chief, Petrography Section, Concrete Research Division, Waterways Experiment Station, Jackson, Miss., has contributed articles to the "Letters from Readers" section of the ACI JOURNAL and has written several articles published in other engineering periodicals. In 1953 she received the Sanford E. Thompson Award of ASTM Committee C-9 on Concrete and Concrete Aggregates for the paper, "Applications of Light Microscopy in Concrete Research."

Mrs. Mather received her education at Bryn Mawr College and John Hopkins University. She has been a geologist and engineer with the Corps of Engineers, U. S. Army, from 1942 to date; petrographer, Central Concrete Laboratory, Mt. Vernon, N. Y., 1942-44; concrete research engineer, 1944-46; petrographer, Concrete Research Division, 1946 to date.

Mrs. Mather is a member of ACI, American Institute of Mining and Metallurgical Engineers, and the American Ceramic Society. Her committee work includes membership on the Mineral Aggregates Committee of the Industrial Minerals Division of AIME.

MacNider named director

Tom MacNider has been named a director of the Northwestern States Portland Cement Co., Mason City, Iowa, and at the same time was made assistant to the president.

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Canadian conference on prestressed concrete

The Extension Department of the University of Toronto is planning to hold a conference on prestressed concrete in Toronto, Ont., Canada, Jan. 28-29, 1954.

Among those who will present papers at the conference are: R. F. Shaw, vice-president of the Foundation Co. of Canada and president of the Corporation of Professional Engineers of the Province of Quebec; Prof. Gustave Magnel of Belgium, internationally known authority on prestressed concrete; Dr. T. O. Lazarides who, besides being an expert on prestressed concrete, is well known for his work on the Dome of Discovery for the Festival of Britain, 1951, and many other important structures; Robert Shama of Empresas Campenon Bernard, Venezuela, whose most recent work has been in connection with the famous arch bridges for the Caracas superhighway in Venezuela; R. B. Young of the Hydro-Electric Power Commission of Ontario, past president of the American Concrete Institute; A. T. Waidelich, manager of the Research Division of the Austin Co., Cleveland; Prof. M. W. Huggins of the Department of Civil Engineering, University of Toronto; and A. L. Parme of the Structural Bureau of the Portland Cement Assn.

Polivka honored

J. J. Polivka, consulting engineer, Berkeley, Calif., and lecturer at Stanford University, received the French Legion of Honor Medal of Etoile de Benin from Louis de Guiringaud, consul general of France, at a recent meeting of Alliance Francaise in San Francisco, Calif.

Earle visits U. S.

George Foster Earle, chairman of Associated Portland Cement Manufacturers Ltd., England, visited the United States in August on the last lap of a transworld air trip. Before reaching the United States, Mr. Earle visited Malaya, Australia, New Zealand and Canada, inspecting cement plants and meeting leading industrialists. Mr. Earle has been chairman and joint managing director of Associated Portland Cement Manufacturers since 1946, and is also chairman of G. & T. Earle Ltd.

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Houston

Continued from p. 5

Bayou enabled large ships to enter Houston successfully. Trade began to increase at a brisk pace, with steamboats discharging lumber, lime, cement, railroad iron, and salt. Continuing expansion, Houston by 1880 had become the terminus for steamship and railroad lines and was successfully completing the transition from a pioneer village to a youthful city.

By 1900, the population was almost 50,000 and Houston had risen to first place among Texas cities in volume of industry and commerce. Discovery of oil in 1901 at Spindletop near Beaumont, destined Texas for rapid growth and Houston for a place among the great ports and cities of the world. The coming of "black gold" brought new industries, new money, and new expansion to the fast-moving city on the bayou.

Sections of the Houston ship channel were completed in 1905 enabling ships to sail daily along the 50-mile strip of water which brought the sea to Houston's door. The port was officially opened in November, 1914, and in August, 1915, the first large ocean going vessel arrived at the Port of Houston.

For a time, the dark clouds of the first world conflict held back expansion somewhat, but the next decade was one of unprecedented growth and prosperity which established Houston as a city of skyscrapers, big industrial plants, and one of the nation's leading ports.

Houston made gigantic strides in banking, commercial and residential construction, and port commerce during the 1930's when other cities were floundering in the great business depression. The Port of Houston continued as an economic factor in the city's growth, and by the late thirties had risen to third in the United States in total cargo tonnage. Coupled with the growing importance of Houston's industry and the busy ship channels to the sea, was construction of new buildings which form a part of the city's skyline today.

The year 1940 set a new record for new industrial establishments, and was the beginning of an industrial empire to be built around Houston, with the oil and chemical industries being the most prominent. Throughout the war and post-war years, Houston's industrial growth has continued at a rapid pace along with allied commercial, residential, and port facility expansion.

Houston has taken giant strides as evidenced by the 1950 census of almost 600,000. The rapid growth today is evidenced by estimated population at the beginning of 1953 of 665,000 within Houston's incorporated area of 163 sq miles, and the added distinction of being ranked second in total tonnage among the ports of the United States.

The development of industry, shipping, and commerce in Houston heralds a giant in the years to come.

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SOUTHWEST REGIONAL MEETING

Professional engineers in industry

The professional engineer in industry is an integral part of management and should be accorded the full recognition that this status implies, asserted T. Carr Forrest, Jr., president of the National Society of Professional Engineers. In an address before the annual summer meeting of the Professional Engineers of North Carolina at Greensboro, N. C., he called for universal acceptance of the "freedom of association" principle, under which it is recognized that groups of professional engineers in an industry should be permitted complete freedom to exchange views on employment conditions with higher levels of management and among themselves regardless of the specific classifications of their respective positions.

Mr. Forrest deplored the activities of those who oppose this principle and who are attempting to draw engineers into labor unions. Unionism, he charged, hampers the professional man in his efforts to develop his creative ability most effectively. "If your professional development and advancement are to be regulated...as part of your daily activities," he told the assembled engineers in scoring the union contract approach to engineer employment problems, "you may or may not climb the professional ladder; but you will climb it, if at all, only on the rungs which are contained in the 'agreement' and you will climb it no faster than the 'agreement' permits."

The NSPE president also emphasized the responsibility that engineers have, and he urged that industry employ engineers at their fullest professional capacities for its own benefit as well as for the public good.

Holcomb appointed head

Glenn W. Holcomb has been named head of the civil engineering department at Oregon State College, Corvallis. Formerly he was professor of structural engineering at the same college.

J. Stuart Crandall

J. Stuart Crandall, president of Crandall Dry Dock Engineers, Inc., Cambridge, Mass., died recently at Concord, Mass. At one time he was a visiting lecturer in port engineering at Harvard University.

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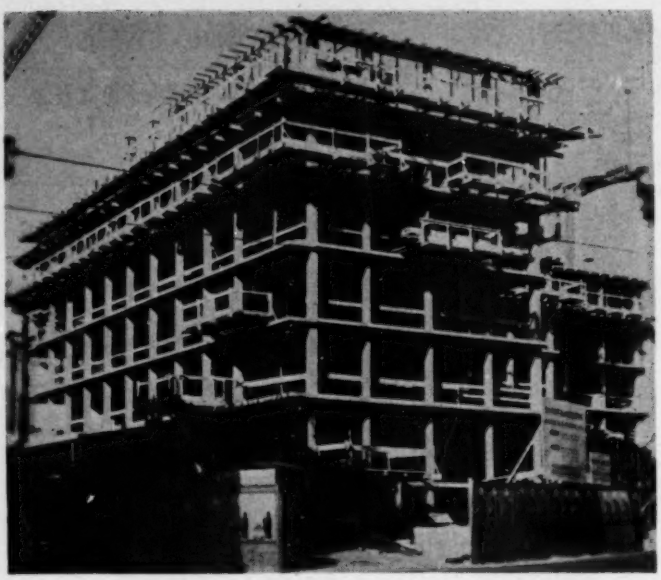
Julian T. Stafford

Julian T. Stafford, Los Angeles structural engineer, died recently. He had been in business for himself since 1944, during which time he participated in architectural and engineering work at Inyokern for the U. S. Navy and handled considerable commercial and public school work.

A native of Missouri, Mr. Stafford had resided in California since boyhood. He graduated from the University of California at Berkeley in 1925 with a degree in civil engineering. His early business experience was with the American Bridge Co. in Gary, Ind., and with the P. J. Walker Co. at Berkeley.

In 1933 Mr. Stafford became associated with the State Division of Architecture and returned to southern California as district structural engineer in charge of the school reconstruction program. During World War II he was civilian planning co-ordinator for construction work in the 11th Naval District.



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New Members

The Board of Direction approved 47 Individual applications, 2 Corporations, 10 Juniors and 2 Students making a total of 59 new members. Considering losses due to deaths, non-payment and resignations the total membership for the month of September is 6174.

Individual

BARBER, JOHN S., Knoxville, Tenn. (TVA)
BELLOWS, W. S., JR., Houston, Texas (Vice-Pres., Gen. Mgr., W. S. Bellows Constr. Corp.)
CAETANO, LEONARD A., San Juan Bautista, Calif. (Chf. Chem., Ideal Cement Co.)
CHERTKOF, J. O., Baltimore, Md. (Cons. Engr.)
EXUM, JAMES P., Portland, Me. (Partner, Howard, Needles, Tammen & Bergendoff, New York, N. Y.)
GILMOUR, PETER M., Cooma NSW., Australia (Civil Engr., Snowy Mtns. Hydro-Electric Authority)
GRAFFLIN, A. C., Sewickley, Pa. (Mfr. & Designer, Precast Struct. Concrete)
GRANT, JAMES E., Bloomington, Ill. (Asst. Field Engr., Alpha Cement Co., Easton, Pa.)
GRASSI, S., S. San Francisco, Calif. (Partner, P. Grassi American Terrazzo Co.)
HAMILTON, W. C., Oakland, Calif. (Partner, Hamilton & Williges)
HARLEY, ROY G., Cleveland, Ohio (Constr. Supt., Albert M. Higley Co.)
HELGESSON, L. A., San Francisco, Calif. (Cons. Engr., Tudor Engrg. Co.)
HSIEH, T. K., Fulham, London (Chf. Designer, Geo. Wimpey & Co. Ltd.)
HUNTER, JOHN L., San Francisco, Calif. (Civil Engr.)
JACOBSEN, MARTIN, Brooklyn, N. Y. (Job Supt., White Constr. Co., Inc., NYC)
KATO, BUNJI, Tokyo, Japan (Director, Tokyo Concrete Co., Ltd.)
KING, ELWYN H., Long Beach, Calif. (Cons. Engr., J. H. Davies)
KROCKER, ROBERT A., San Antonio, Texas (Partner, Addis E. Noonan Assocs.)
LUNDELL, LARS G., New York, N. Y. (Gen. Mgr., Precast Bldg. Sections, Inc.)
MATALLANA, ALVARO, New York, N. Y. (Buck, Seifert & Jost, Bogota, Colombia)
MCINTOSH, W. J., New York, N. Y. (Distr. Engr., PCA)
MICHELS, JULIUS, Choln, Israel (Civil Engr.)
MILLIARD, OMER J., JR., Denver, Colo. (Bridge Engr., City & County of Denver)
MORAN, CHARLES F., Pasadena, Calif. (Civil Engr., PCA, Los Angeles, Calif.)
ORIZONDO, MANUEL BUSTAMENTE, Sancti Spiritus, Cuba (Designer of Concrete Structures)
PADGETT, JACK A., Ft. Worth, Texas (Gen. Mgr., J & R Cast Stone Co.)
PAIXAO, HERMES SILVA, Bogota, Colombia (Civil Constr. & Reinforced Concrete)
PILON, CERWIN A., Seattle, Wash. (Asst. Constr. Engr., Washington State Highway Dept.)
PLUTO, GEORGE W., JR., Dallas, Texas (Technical Dir., Texas Testing Labs.)
PODE, CHUER KEO BLAN, Bangkok, Siam (Bangkok Mun.)
RICHTER, L. H., Helena, Montana (Asst. Matls. Engr., State Highway Comm. of Helena, Montana)
SCALZI, DR. JOHN B., Cleveland Hts., Ohio (Assoc. Prof. of Struct. Engrg., Case Institute of Technology)
SCHLINTZ, HAROLD H., Fresno, Calif. (Chf. Civil Engr., Walter Wagner Co.)
SEABROOK, BELFORD L., Bridgeton, N. J. (N. J. Professional Engr.)
SHAYA, SAMUEL, Tel-Aviv, Israel (Partner, Engrg.-Architectural Firm)
SHORT, HAROLD H., Boulder, Colo. (Vice-Pres. & Gen. Mgr., Milne Ready Mixed Concrete, Inc.)
SINNICKS, GEORGE S., Charlotte, N. C. (Sales Mgr., Superior Block Co.)
SMITH, BERNARD C., Roswell, New Mexico (Field Engr., PCA)
SMITH, ELMER I., Waco, Texas (Smith Furniture Mfg. Co.)
SOWLES, LAWRENCE P., Canyon Ferry, Montana (Project Mgr., Canyon Constr.)
STEWART, A. L., Sydney, Australia (Director, Standards Assoc. of Australia)
TIMBY, ELMER K., New York, N. Y. (Partner, Howard, Needles, Tammen & Bergendoff)
WALTON, JEAN R., Escoudido, Calif. (Project Engr., USBR)
WARE, RICHARD W., San Francisco, Calif. (Chf. Struct. Engr., Adrian Wilson & Associates)
WHEELER, WILLIAM H., Tucson, Arizona (Field Representative, PCA)
WILES, FREDERICK GEORGE, Gore, New Zealand (Constr. Supt.)
ZELENSKY, MICHAEL, Brooklyn, N. Y. (Draftsman, Designer, Robert Wesly Briggs, C. E.)

Corporation

ATLANTIC, GULF & PACIFIC COMPANY OF MANILA, Manila, Philippines (Mr. O. A. Boni, Vice-Pres.)
BOARD OF WATER SUPPLY, New York, N. Y. (Mr. Stanley M. Dore, Deputy Chf. Engr.)

Juniors

BAGLEY, DAVID A., Cheyenne, Wyo. (Civil Engrg. Asst., Division of Highways, Los Angeles County)
ELLIOTT, ROBERT GORDON, Cheyenne, Wyo. (Jr. Bridge Designer, Wyoming State Highway Dept.)
FERRIE, ROBERT, Kitimat, Canada (Lab. Testing & Designing Engr., Aluminum Co. of Canada)
HOWLAND, FRANK L., Urbana, Ill. (Research Assoc. in Civil Engrg., University of Illinois)
PARIS, HENRY, Caracas, Venezuela (Bridge Designer, Venezuelan Gov't, Ministry of Public Works)
PEDERNEIRAS, NICOLAU, Curitina, Brazil (Constr. Engr., Comissao Especial de Obras do Centenario)
PEREA, VICTOR M. (Civil Engr., Frederick Snare Corp., Habana, Cuba)
POONPANICH, CHALO, Siam, Thailand (Head of Planning Section, City Engineers Office, Bangkok Municipality)
REVILLA, V. CASTRO, Lima, Peru (Civil Engr., Cerro de Pasco Corp.)
SAWYER, JAMES LEE, Denver, Colo. (Lab Technician, City & County of Denver Water Dept.)

Students

PEREZ, LUIS E., Cambridge, Mass. (Massachusetts Institute of Technology)
WARREN, ROBERT L., Texarkana, Texas (Texas Technological College, Lubbock, Tex.)

Honor Roll

February 1—August 31, 1953

James A. McCarthy still leads the Honor Roll with 12 credits this month. J. E. Jellick holds second place with 9 credits. Phil M. Ferguson and Walter E. Price share third place with 5½ credits each.

James A. McCarthy	12
J. E. Jellick	9
Phil M. Ferguson	5½
Walter E. Price	5½
F. Thomas Collins	5

Continued on p. 24

AMERICAN CONCRETE INSTITUTE

CONCRETE PRIMER

One hundred forty-two questions and answers on cement, mortar, and concrete for the beginner as well as the engineer, superintendent, and foreman

THE Concrete Primer, by F. R. McMillan, develops in simple terms the principles governing concrete mixtures and presents a handy reference text for those who apply these principles to the production of concrete structures.

The 46-page handy, pocketsize booklet is now in its 6th printing by ACI and may be purchased in quantity at special prices.

46 pages (pocketsize) 35 cents per copy

AMERICAN CONCRETE INSTITUTE
18263 WEST McNICHOLS ROAD
DETROIT 19, MICH.

Honor Roll

Continued from p. 23

Herbert J. Gilkey	5
Samuel Hobbs	5
C. H. Scholer	5
Elmo C. Higginson	4½
Henry L. Kennedy	4
Shigeo Okubo	4
M. A. Sozen	4
J. A. Thomen	4
H. B. Tryhorn	4
MacGregor S. Anderson	3
Carlos D. Bullock	3
Myle J. Holley, Jr.	3
K. A. Howard	3
Newlin D. Morgan, Jr.	3
Kiyoshi Okada	3
Lawrence Schwinn	3
George D. Youngclaus	3
Arbak Abadalian	2
Harold Anson	2
Reinard W. Brandley	2
V. J. Cespedes	2
Edw. M. Corbett	2
W. S. Cottingham	2
K. Hajnal-Konyi	2
John M. Hayes	2
Chuzo Itakura	2
Rowland F. Jones	2
M. B. Klock	2
Frederico Leon	2
B. W. Lorance	2
W. R. Lorman	2
William McQuire	2
John P. Ottesen	2
Adrian Panw	2
George Pinter	2
Leo W. Schmidt	2
Joaquin Spinel L.	2
E. W. Thorson	2
Fred F. Van Atta	2
C. O. Wailes, Jr.	2
S. J. Warberg	2

National Safety Council convention

The biggest safety event of the year, the National Safety Congress and Exposition, with an estimated 12,000 planning to attend, will be held October 19-23 at the Conrad Hilton hotel in Chicago, Ill. More than 200 sessions, with 600 program participants, are planned for the coming event. Among the sessions of interest to ACI members are the following in the construction section of the exposition: progress on study of construction safety needs, and promotion program for construction safety needs, 1953-54. The programs call for discussions by representatives from various industries and the government.

Tools, Materials, Services

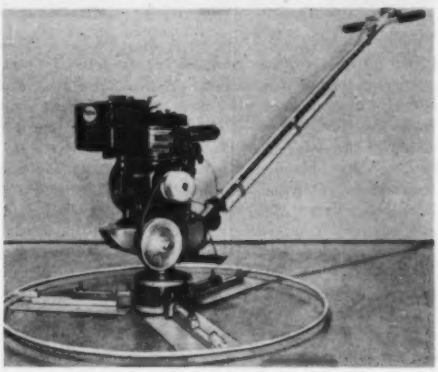
Under this heading note will be made from time to time of producer literature of presumed technical interest (and available from its source for the asking) to ACI users of tools, equipment, materials, accessories and special services.

Concrete saw

The concrete saw introduced by Eveready BrikSaw Co. is designed with a hydraulic control for lowering the blade. With this hydraulic control, the operator can lower the blade into the cut at a controlled rate of speed, lessening the danger of dropping or bouncing the blade against the material. With two or three strokes of the hydraulic pump handle, the operator can lift the blade out of the cut. Savings up to 50 percent in time and material are said to be realized when the saw is used before breaking out concrete or asphalt for plant floor patch work, for cutting utility line trenches, for sawing openings for new machinery bases, and for sawing of contraction joints in new construction. Other features noted by the manufacturer include: trimatic blade alignment, an automatic "floating action" of the saw wheels that prevents any binding or tilting of the blade when saw is operated over uneven or broken surfaces; a dual blade shaft that makes it possible to place the blade at either side for sawing in corners or confined areas; a depth control lock that allows cutting to a predetermined depth; a friction-type foot brake that holds the saw on hills or inclines; and dash board controls that make possible cutting operations by the operator from his place behind the saw.—Eveready BrikSaw Co., Dept. 256, 1509 S. Michigan, Chicago, Ill.

Conveyor for builders

Fairfield Engineering Co. has announced an addition to its line of conveying equipment. Called the Fairfield Builder, it handles brick, block, tile, mortar, and other building material. It is available in two models. The flare top (Model 270) has the deeper trough and conveys all building materials except those wider than 16 in. For elevating wide insulating board, corrugated roofing or siding the flat top (Model 271) is available. By adding one or two 8-ft boom sections, the 24-ft base machine can be converted into a 32-ft or 40-ft conveyor. Features of the conveyor include all-steel construction, special slip-clutch and brake assembly, lightweight carriage with high speed wheels, ratchet type hand hoist for raising and lowering the boom, removable base for either gasoline engine or electric motor, and balanced construction so that one man can move it from place to place on the job and by truck or car from job to job.—Fairfield Engineering Co., Barnhart St., Marion, Ohio



Concrete floating-finishing machine

Basic improvements have been announced in the Whiteman Model J-1 concrete floating-finishing machine manufactured by Whiteman Manufacturing Co. The improvements announced are: a Timken bearing gear case; a safety switch on the handle which shuts off the machine automatically when the operator releases his grip; ball-thrust bearings which make trowel pitch adjustments easier when the machine is in operation; a rubber collar to protect the trowel adjustment arms; "snap on" trowels for floating; centrifugal clutch which automatically tightens the belt drive; adjustable trowel pitch when the machine is in motion; and a Briggs & Stratton four-cycle air-cooled engine. Trowel diameter is 34 in. for operation in close areas.—Whiteman Manufacturing Co., 3249 Casitas Ave., Los Angeles 39, Calif.

Bond prevention

Three developments concerned with bond prevention in post-tensioned, prestressed concrete structures have been announced by Anchor Plastics Co. The first, a split tubing with corrugated overlap is suitable for bond prevention over twisted wire cables. It is suitable for most applications using wire rope as well as for parallel wires. Costs are said to be decreased because of the small amount of labor involved.

The second, Aeroflex V, comes in 4 in. wide strips and is spirally wrapped around the wire group, and requires no further sealing. Costs for double thickness, as is usually specified for this method, are said to be less than one cent per foot.

The third development in bond preventing materials, for solid steel rods and bars, is an Aeroflex thin-walled tube which is said to cost only two cents per running foot for a 1½-in. diameter bar.—Anchor Plastics Co. Inc., 36-36 36th Street, Long Island City 6, N. Y.

Drilling concrete

An unusual drilling problem, encountered in construction of the Cincinnati Veterans Hospital was solved by the use of the rotary Konkrete Kore drill made by Tilden Tool Manufacturing Co. The job required two 4-in. holes through 15½ in. of concrete, in which was imbedded a ½-in. steel I-beam. Drilling was difficult because the holes were to be located a few inches below the ceiling. Skids were erected to support the 1¼-in. 150-rpm drill motor. A horizontal pressure bar, attached with wing nuts to two threaded rods which were anchored to the wall, was placed against the rear of the drill motor. The wing nuts were tightened, while the drilling progressed, to eliminate undesirable play. A 2 x 4 was used between the pressure bar and the motor case to protect the motor and give additional leverage. Water was used to flush cutting debris from the holes, and as a coolant during the job. — Tilden Tool Manufacturing Co., San Clemente, Calif.

Engineers wanted

The Engineers Joint Council has announced the availability of a booklet entitled "How Your Company Can Help Promote Engineering as a Career." Information is contained on how industrial organizations may aid in active support of the Engineering Manpower Commission's program designed to interest talented young people in careers in engineering.—Engineering Manpower Commission of Engineers Joint Council, 29 West 39th St., New York 18, N. Y.

Cement colors

Landers-Segal Color Co. has issued a leaflet "Suggestions for Using Cement Colors" which contains information pertaining to the use of coloring in terrazzo surface coatings, and other concrete products.—Landers-Segal Color Co., 78 Delevan St., Brooklyn 31, N. Y.

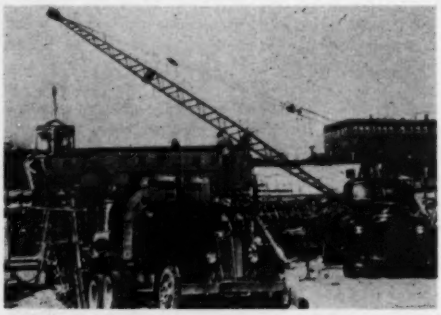
Glazed concrete masonry

A glazed masonry unit has been made available by Burns and Russell Co., and is marketed under the trade name of Spectra-Glaze. The company has formulated low-temperature compounds known as Cermac, which are baked onto masonry units to present glazed finishes. Ten soft-toned colors for interior wall treatment are standard, and other colors can be matched on special order. The glazing operation is separate from regular block production. Lightweight block are manufactured, steam-cured, and air-dried in the usual way to pass ASTM requirements and are then glazed only when ready for use.

Two textures are available: acoustical type A retains the rough texture of the natural block and tile face type B presents a uniformly smooth surface. The latest development, the recently introduced Cermac type B-3 for producing tile face units, shows distinct improvement in uniformity of appearance, depth of color, stain resistance, and ease of manufacture. Both finishes are said to be permanent, stain-proof, and color fast for interior use. Both types are supplied in the standard sizes of modular block, load-bearing, partition, veneer, and in the necessary architectural shapes. Of special interest is the fact that tile face units can be supplied in cove base stretchers and return units.—Burns and Russell Co., Tower Bldg., Baltimore 2, Md.

Masonry paints

Development of masonry paints for stucco, brick, concrete, and construction block in 144 colors has been announced by Martin-Senour Co. Under the trade name Colorsol, the alkali-resistant paint is specially developed, the manufacturer states, to retain the selected color under the most extreme weather conditions. It can be brushed or sprayed just as ordinary house paint, and is available in 12 packaged colors with seven colorants in tubes. Packaged colors plus toners produce 144 colors. The company also announced that color samples are available in a color chip portfolio which contains 10 each of 2½ x 1½-in. chips of the 144 colors. — Martin-Senour Co., 8 S. Dearborn, Chicago, Ill.



Truck crane

A mobile truck-crane, designated as the Pitman crane Model 80 has been introduced by Pitman Manufacturing Co. Capacity up to 4 tons on a 25-ft boom, with additional boom lengths up to 59 ft are features of this crane, which is designed for installation on trucks 2½ tons or larger. A loadline winch which can be operated either power-up, power-down, or free-spooling allows the operator to either let the load down under full power or to slip it down as fast as he wants with a foot brake. This feature along with a double-acting hydraulic cylinder which swings the boom in a 180-deg arc is said to provide precise boom action. A fifth wheel can be installed on the crane's sub-frame on a long wheelbase truck, allowing the owner to use the same truck on which the crane is mounted to haul a trailer. Standard boom length of the crane is 25 ft with inserts available for additional boom lengths of 37, 48, and 59 ft. Maximum ratings for these boom lengths are: 25 ft, 8000 lb; 37 ft, 6000 lb; 48 ft, 3000 lb; and 59 ft, 1000 lb.—Pitman Manufacturing Co., 300 West 79th Terrace, Kansas City, Mo.

Membership in the American Concrete Institute

To facilitate prospective members in joining the Institute, membership application forms are provided. Present Members may aid by bringing these forms to the attention of those who may profit from membership advantages. The grades of membership are described overleaf.

All who have an interest in concrete and a desire to improve it through a nonprofit educational service in gathering, correlating, and disseminating information on design, construction, manufacture, use, and maintenance of concrete structures and products are eligible for Institute membership.

There are many opportunities in the Institute for technical committee activity, contributions from your experience in technical papers and the briefer "Letters from Readers" section, and in reviewing technical literature. Thus you can help further ACI's aim "to provide a comradeship in finding the best ways to do concrete work of all kinds and in spreading that knowledge," and at the same time benefit from the experiences of other Members.

(cut here)

Board of Direction, American Concrete Institute
18263 W. McNichols Road
Detroit 19, Michigan

Date_____

Individual Members, North America and U. S. Possessions	**$15.00**
Individual Members elsewhere	**12.00**
Corporation Members	**50.00**
Contributing Members	**100.00**
Junior Members—nonvoting (under 28)	**7.50**
Student Members—nonvoting (under 28)	**5.00**

(Subject to stipulations of Bylaws—Article I on reverse side. Bylaws on request.)

Of the annual dues, $12.00 is for the JOURNAL of the American Concrete Institute (except that dues for Junior and Student Members apply in full for the JOURNAL).

The undersigned hereby applies for_____**membership**
(Individual, Corporation, Contributing, Junior, Student)

in the American Concrete Institute. Proposed by_____

For Corporation Membership, ACI representative will be_____

_____ _____
(Date of graduation if Student) (Name, if Corporation)

Signature_____

For our records, please complete both sides of application.

EXCERPTS FROM BYLAWS: ARTICLE I—MEMBERS

Section 1. This Institute shall consist of Members, Corporation Members, Contributing Members, Junior Members, Student Members and Honorary Members interested in furthering the Institute's objects as set forth in its Charter.

Sec. 2. A Member shall be an individual.

A Corporation Member shall be a firm, corporation, society, agency of government or other organization. A Corporation Member shall name one individual as its representative who will enjoy all membership rights and privileges.

A Contributing Member shall be an individual, firm, corporation, society, agency of government or other organization wishing to give larger support to Institute activities through the payment of larger dues. Contributing Members, other than individuals, shall name representatives as do Corporation Members.

A Junior Member shall be a person less than 28 years old.

A Student Member shall be less than 28 years old and a student in residence at a recognized technical or engineering school.

An Honorary Member shall be a person of eminence in the field of the Institute's interest, or one who has performed extraordinarily meritorious service to the Institute.

Sec. 3. All classes of Members except Honorary Members and Student Members, shall be proposed by at least one Member of the Institute and elected by a two-thirds vote of the Board of Direction. An Honorary Member shall be elected by unanimous vote of the Board of Direction. A Student Member shall be proposed by a member of his school's faculty, who need not be a Member of the Institute, and elected by a two-thirds vote of the Board of Direction.

Sec. 4. All Members shall have all rights and privileges of membership as determined by the Board of Direction except that a Junior or Student Member shall not vote nor hold office. The status of a Student Member shall change automatically to that of Junior Member on the first anniversay of his membership succeeding the date on which he ceases to be a student in residence. The status of a Junior Member shall be changed to that of Member on the first anniversary of his membership after he becomes 28 years of age.

Sec. 5. Applications for and resignations from Membership and requests for change of representatives of Corporation or Contributing Memberships shall be presented in writing to the Secretary-Treasurer. Resignations may be accepted only from Members whose dues are not more than 60 days in arrears, except by special action of the Board of Direction.

(cut here)

Date of Birth _____
Month Day Year

Title or Position _____

Name of Firm or Organization _____

☐ **Business Address** _____

☐ **Resident Address** _____
(Please check address to which you wish mail and publications sent)

Nature of Firm's Business _____

Screeding machines

A new telescopic frame is said to be one of the outstanding features of two new screeding machines, giving them extreme versatility. The manufacturer claims that more powerful engines give the machines finer performance. Mounting the engines at the end of the machines instead of in the center, eliminates sag of screed sticks. Attachments are available for overhead screeding.—Whiteman Mfg. Co., 3249 Casitas Ave., Los Angeles 39, Calif.

Hard-facing electrodes

Alloy Rods Co. has issued a 12-page catalog, Bulletin AR 53-20, on its lines of Wear-Arc hard-facing electrodes and Wear-Flame hard-facing rods, offered in nine and four basic types, respectively. Intended for use in rebuilding and hard-facing for correction of wear patterns, these rods have applications in straight abrasion, abrasion and severe impact, abrasion and light impact, abrasion and compression, abrasion and corrosion, abrasion and heat; heat and impact; and heat and corrosion.—Alloy Rods Co., York, Penn.

Surface coating

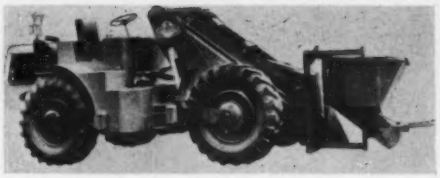
A line of surface coating materials under the trade name of Surco have been announced by Surface Coatings Inc. These coatings are said to be tough, flexible, and water repellent in addition to having good bond to masonry, concrete, plaster, wood and glass. These materials are similar to concretes or plasters, but instead of water alone acting as the binder, latex-water emulsions are used. To meet varied demand, two general types of latex have been developed; in one the waterproofing qualities are amplified while in the other wear resistance has been emphasized. A wide variety of uses are said to be possible, such as in roofs, floors, platforms, drives, sidewalks, waterproofing, and stucco-work. With addition of colors and marble chips, a terrazzo type of flooring can be obtained. Application is by any of the present methods or by special machinery developed by the manufacturer, and surface is ready for use in 12 to 24 hr.—Surface Coatings Inc., Dept. B-116, 110 Pear St., Atlanta, Ga.

Industrial belting manual

A 48-page manual on transmission, conveyor, and elevator beltings has been issued by Boston Woven Hose & Rubber Co. Although designed principally for engineers, each of the three major divisions of the manual contains a general information section covering every aspect of each belting. General information data is handled in question-and-answer style in simple, lay language, making it a valuable reference work for the non-engineering group. The engineering phases of belting are covered in tables and charts, while diagrams are used profusely to help clarify intricate or obtuse problems.—Boston Woven Hose & Rubber Co., P. O. Box 1071, Boston 3, Mass.

Water repellent

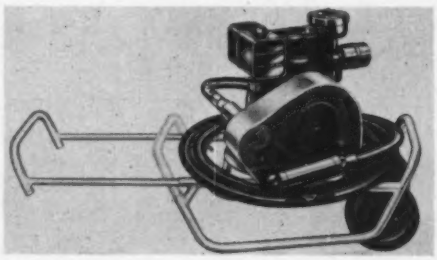
A new water repellent is claimed to make all types of above-grade porous masonry shed water immediately after drying. It is said to be completely invisible; will not discolor; will not wear away. Detailed information is available upon request.—L. Sonneborn Sons, Inc., Dept. P-2, Building Products Div., 80 Eighth Ave., New York 11, N. Y.



Material moving

Five new attachments to increase the job flexibility of Scoopmobile Model LD10 and LD5 front-end loaders have been announced by Mixermobile Manufacturers. Included on the list are lift forks, backfill blade, crane boom, concrete hopper, and a dozer blade. These attachments are designed to utilize the heavy-duty power of the four-wheel drive and power steering, for many tasks in construction, lumbering, and general industry.

The lift forks, backfill blade, and concrete hopper mount directly on the hydraulic boom, replacing the scoop and using standard fittings for fast change-over. Shown in the photo is the swivel type concrete hopper attachment. The dozer blade, for the LD10 only, attaches directly to the chassis, which takes up the strain of heavy dozing.—Mixermobile Manufacturers, 8027 N. E. Killingsworth, Portland 20, Ore.



Concrete vibrator

Viber Co. announces the addition of a telescoping handle to their Viber gas vibrator carriage, which is said to add to the stability and increase ease of handling. The handle can be extended 20 in., and can be locked in any position from closed to fully extended. All models now carry this modification which, with the handle extended, reduces by 40 percent the lifting force required and gives increased control in rolling over rough ground or other obstructions.—Viber Co., 726 South Flower St., Burbank, Calif.

Truck mixers

Bulletin No. R1700-BB, covering Blue Brute truck mixers and a specification sheet for the Blue Brute 3½-S end-discharge tilting mixer has been released by the Worthington Corp. The bulletin describes and illustrates both the LC and LO models of inclined-axis truck mounted concrete mixers. Many of the design features of the mixers are illustrated by photographs or cut-away drawings indicating details of each. Some of the features claimed for the end discharge tilting mixer are the following: 48-in. loading height, finger tip control drum lock, rigid box type coil spring mounted axle, and a mixing drum that allows a complete revolution.—Worthington Corp., Construction Equipment Division, Plainfield, N. J.

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DISCUSSION

Discussion closes January 1, 1954

Sept. Jl. '53

Minimum Standard Requirements for Precast Concrete Floor Units—Committee 711

Concrete for Radiation Shielding—Edwin J. Callan

Absorption by Concrete of X-Rays and Gamma Rays—B. E. Foster

Effect of Sustained Overload on the Strength and Plastic Flow of Reinforced Concrete Beams—G. W. Washa and P. G. Fluck

Economical Design of Prestressed Concrete Beams—David P. Billington

Discussion closes February 1, 1954

Oct. Jl. '53

Proposed Recommended Practice for Selecting Proportions for Concrete—Committee 613

Development of a Cell for the Installation of Electrical Resistance Strain Gages—Herbert E. Worley and Richard C. Meyer

Failure of Concrete under Combined Tensile and Compressive Stresses—Gerald M. Smith

Correlation Between Laboratory Accelerated Freezing and Thawing and Weathering at Treat Island, Maine—Thomas B. Kennedy and Katharine Mather